

**Nick Martin**  
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## Professional Objective

To design and implement interesting and worthwhile systems.

## Core Abilities

- Effective team member. Plays well with others.
- Adapts quickly and effectively to new technical and social environments.
- Possesses a broad range of skills in a wide variety of technical fields.

## Technical Skills

- **Recent and Extensive Experience:** Application development in C++ on GNU/Linux and other UNIX, MacOS, and Windows. Web development with Ruby on Rails and associated web tools. Server scaling, replication, administration, and maintenance on GNU/Linux.
- **Toolchain:** Familiar with development in a large number of languages including C, C++, Python, Ruby, Java, Objective-C, LISP, Scheme, Perl, various assemblies, SQL, Javascript, HTML/CSS, XML, Matlab, and LaTeX. Comfortable working with and administering GNU/Linux, BSD, Solaris, MacOS, and Windows platforms. Regularly use Amazon Web Services including S3 and EC2, Map/Reduce with Hadoop and Cascading, Subversion, Apache, PostgreSQL, OProfile, perftools, valgrind, gcc, gdb, make, scons, XCode, emacs, vi.
- **Other Areas of Experience:** Embedded system design, microprocessors, and digital logic. RF engineering and propagation from MF to UHF. Comfortable in a machine shop, including CAD/CAM tools and CNC equipment.

## Employment History

### **Square Products Corporation, 2007 – 2010, San Francisco, CA**

#### *Co-founder*

Conceived and developed a novel social music listening application. Designed and implemented an innovative real time streaming peer to peer network (patent pending), including NAT-busting technology and user-space TCP stack with advanced congestion control. Worked on all components of the system, including cross-platform (Mac/Windows/Linux/iPhone) GUI in C++, real-time AJAX/COMET web app in Ruby on Rails, and backend in C++ with PostgreSQL, ActiveMQ, Python and more. Deployed production service on Amazon EC2.

### **Vanu Inc., 2003 – 2007, Cambridge, MA**

#### *Member of Technical Staff*

Lead team to design and implement Software Defined Radio toolkit for research institutions. Wrote Linux device driver for high speed PCI RF interface. Modeled RF propagation and optimized network layout for wireless back-haul for cellular base-stations (patent pending). Maintained and improved commercially deployed GSM cellular infrastructure.

### **Technology Education Research Center, 2002, Cambridge, MA**

#### *Lead Developer: Tracks*

Developed and shipped a commercially available educational game for PalmOS

### **MIT Information Systems, 2000 – 2003, Cambridge, MA**

#### *Athena Server Operations Watchmaker*

System administration for Project Athena, MIT's distributed computing environment.

## Education

### **Massachusetts Institute of Technology, 1999 – 2003, Cambridge, MA**

Bachelor of Science in Electrical Engineering with a minor in Mechanical Engineering.

*Overall GPA:* 4.6 / 5.0

*Subjects:* Structure and Interpretation of Computer Programming (6.001), Signals and Systems (6.003), Computation Structures (6.004), Analog Design Laboratory (6.101), Digital Systems Laboratory (6.111), Microcomputer Project Laboratory (6.115), Modeling, Dynamics, and Control (2.003, 2.004), Feedback Systems (6.302), Design and Manufacturing (2.007), Differential Equations (18.03).

### **Lick-Wilmerding High School, 1995 – 1999, San Francisco, CA**

*Overall GPA:* 4.1 / 4.0. (Weighted)

## Other Interests

- Biking. Cycled from Boston to San Francisco in the Summer of 2003.
- Amateur Radio. Callsign N1MMY. Primarily QRP, digital, and contest operation.